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TO THE INTERESTS  
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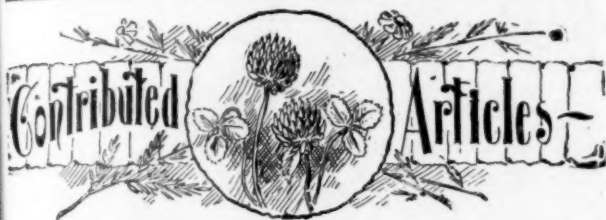
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## The "California Bee-Keepers' Exchange."

BY J. H. MARTIN.

[The following is a report of the special meeting of the California Bee-Keepers' Association, and the organizing of the CALIFORNIA BEE-KEEPERS' EXCHANGE.—EDITORS.]

It will be remembered that at the annual meeting of the State Association, held in Los Angeles, Nov. 16 and 17, 1895, a committee was appointed with full powers to formulate plans for an organization that would unite the bee-keep-

was to ratify the work of the committee, and adopt by-laws for the government of the Exchange.

In the absence of Prof. Cook, the meeting was called to order by Mr. C. H. Clayton, the Vice-President. After receiving the report of the committee, and attending to other business that properly belonged to the State Association, the meeting then resolved itself into a committee of the whole, with Hon. J. M. Hambaugh as chairman. Mr. R. Touchton, of Santa Paula, had formulated a set of by-laws, and they were read, section by section, by the Secretary, and each section was attentively considered, and many of them were discussed at length. Throughout the discussions the best of temper was maintained, and there were no stings with venom that words so often inflict.

Mr. Touchton had drawn the by-laws with such care that there were but few amendments made, and at the conclusion of the discussion, which run well into the second day, they were adopted.

This committee of the whole then adjourned, and those who had become members of the "California Bee-Keepers' Exchange," by the payment of \$1.00, and signing the articles, met for the purpose of electing permanent Directors, and the



Apiary of Mr. A. W. Swan, Centalla, Kans.—See page 137.

ing interests under one head, for the more systematic marketing of our products, and purchase of supplies.

This committee met in Los Angeles, Jan. 6, and as a result articles of organization were drawn up under the co-operation law of 1895 (as it is known in this State). The articles were filed in State and county, and a special meeting of the State Association and all bee-keepers was called for Feb. 8. There was a large gathering of representative bee-keepers at the Chamber of Commerce on that date, and their work

following 11 gentlemen were elected for the counties following the names:

J. La Rue for Riverside; G. S. Stubblefield, San Diego; R. Touchton, Ventura; C. H. Clayton, Los Angeles; R. B. Herron, San Bernardino; J. C. McCubbin, Central California; E. A. Honey, Orange; Geo. W. Brodbeck, F. S. Pond, W. T. Richardson and J. H. Martin, at large.

The meeting of members of the Exchange then adjourned, and the Directors appointed a meeting for the next day in

which to elect officers and a general manager. At this meeting, which assembled in the Chamber of Commerce Feb. 5, at 9:30 a.m., W. T. Richardson, of Fremontville, was elected President; Geo. W. Brodbeck, Vice-President; The Los Angeles National Bank, Treasurer; and H. H. Youngken was unanimously elected Secretary and General Manager, and the California Bee-Keepers' Exchange was declared permanently organized.

The committee who formulated the Exchange, and bee-keepers generally, felt the necessity of getting a thorough business man for General Manager, and in selecting Mr. Youngken they went outside of the ranks of bee-keepers. Mr. Youngken comes highly recommended by the bee-keepers of Ventura county. He has been a bookkeeper from youth up, has a practical knowledge of banking, and a wide acquaintance with monied interests. He is the successful manager of a Building and Loan Association, and has successfully built up other organizations. Mr. Youngken thinks that if the honey interests of California are handled in a co-operative and businesslike manner, there are great possibilities before it for the mutual benefit of all concerned.

Bee-keepers seem to be alive to the benefits to be derived from a thorough organization, and before it was three days' old, the Exchange had enrolled upward of 70 members, among them such honey-producers as W. T. Richardson, with his 60 odd tons; M. H. Mendleson, with his scores of tons; Mr. Touchton, a large producer; and others too numerous to mention, who produce honey by the carload.

At this writing, meetings are being held in the various counties, and the ball is rolling. It cannot be expected that great things can be accomplished immediately, but by sticking everlastingly at it, great good will result.

It is the intention of the Exchange to get supplies for all of its members, at the lowest wholesale price. This feature alone would be of sufficient importance to cause every California bee-keeper to belong to the organization. Readers of the American Bee Journal may expect to see more in relation to this movement in the near future. J. H. MARTIN, Sec.

Bloomington, Calif.



### Some Subjects Reviewed and Commented Upon

BY DR. C. C. MILLER.

**CALIFORNIA BEE-KEEPERS' EXCHANGE.**—Whether the competition of California honey in the Northern markets is a good thing for Northern bee-keepers may be questioned, but on page 81, Prof. Cook has put the need of Californians so plainly and forcibly that one cannot help wishing them full success. On the whole, if the plans of the Californians succeed, how can it fail to be a benefit even to Northern producers? For is it not better to have the competition of honey that is sold at living prices than to have that of honey that is sold for almost nothing? Possibly the success of those Southern men may be an example for others, and the market throughout may be improved. At any rate, they seem to be in dead earnest, and that counts for a good deal. Success to them.

**OUT VS. IN WINTERING.**—In reply to Bee-Master, (page 84) I would say that his first guess is not far from right, that is, for me out-door wintering is many times more unsafe than in-door. If, however, there may be a plan of out-door wintering by which I could be fairly successful, I should very much like to practice it, if for nothing else because in that way the bees are always surrounded with pure air. So I try occasionally wintering in the open on some plan a little different from anything I have previously tried. But it would be foolish to try any large number until I first succeed with a smaller number. Should the one colony that is now on its summer stand come out with flying colors in the spring, the experiment will probably be repeated another winter on a larger scale.

**SELLING HONEY ON COMMISSION.**—On page 87, Mr. Abbott takes very radical ground—a little too radical, it seems to me. His idea is all right, that it's a risky thing to send honey to men you know nothing about. That's true, and the fact that commission men have things so largely in their own hands makes it all the more important to know about the man you deal with. But if you know your man, and are sure that he's straight and honest, I don't see why there's anything wrong in the principle of selling on commission. Why is the principle any different from hiring a man to peddle honey for you? In either case it is doing business on your capital, and so is the man doing business on your capital who uses your saw to saw your stove-wood.

"Most commission men are honest and honorable,"

says Mr. Abbott. Then find out which they are, and ship to them, if you've no better way to dispose of your honey.

There's just a bit of moonshine in the idea that there's no risk about selling for cash. If a man is dishonest it may be safer to send on commission than to sell for cash. For if you sell to him for cash and he fails to pay on receipt of the honey, you have no recourse at law if the man is not financially responsible; whereas, if you ship to him on commission, and he pockets the proceeds, you can proceed against him as a criminal. Don't condemn the whole commission business just because the minority of men in it are bad.

**T SUPERS AND PATTERN-SLATS.**—C. C. Parsons, (page 87) takes such a reasonable view of things that I am sure he'll not take it amiss if I say that I think he would prefer T supers if they were made right and used right. His supers are made after the old way, having the bee-space at the bottom. I'm pretty sure he'd like the improved way better—the space at the top. He'd also find it an improvement to have sections narrow enough to admit a follower. I don't know how he takes sections out of T supers, but I know he can do it very easily if he does it the right way.

**NUMBERING HIVES.**—Several have lately given their plans for numbering, and some seem to think it an advantage to have the numbers permanently attached to the hives. Probably that's all right with their management, but it wouldn't work in my apiary. The same stand must always have the same number, for it wouldn't do to have a hundred numbers in confusion so a number could not readily be found. Then when the hive is changed to another stand its number must be changed.

**LOSING QUEENS BY DOUBLING.**—Isn't the experience of S. M. Robertson, on page 110, quite exceptional? If I am not mistaken it is a common practice to double up swarms just as he did, leaving the bees themselves to settle their little differences as to queens, and generally all ends well. If the swarms doubled were all second-swarms, having young queens, it is possible that the queens were lost on the wedding-trip. Even then, the loss of queens was unusual. Marengo, Ill.



### A Queen-Clipping Implement Described.

BY C. MONETTE.

Although this might be called the age of machinery, when a person claims and advertises that he has invented a machine that will catch and clip a queen any way desired, and that it is impossible to injure her with said machine, either in catching or clipping, the bee-keeping public is apt to be somewhat skeptical about it, and on this account I have asked to be allowed to explain what the machine or device is.

I keep all laying queens clipped, and consider it a great advantage to have them so, but it was always a good deal of trouble for me to catch and clip queens by hand without danger of injuring them. A laying queen is a very delicate thing to handle without injury, and in spite of myself I would always become nervous and excited when trying to catch and clip a queen by hand; and the more valuable the queen, the more nervous I would be. I have injured a good many. Sometimes I would do it in catching them, and sometimes, after I had caught them all right, I would clip off a leg or two with a wing. It was on this account that I made the clipping device. At first I had no thought of getting it patented or offering it for sale, but I was so much pleased with it myself that I gave, or sent, one to a number of my bee-keeping friends, and in every case they were so pleased, and spoke so highly of it, that I made arrangements to offer it to all who might need it. Although it is said that nothing is perfect, I believe this is so nearly so, that it can never be improved in any way, for it is utterly impossible with this device for the operator to injure a queen, either in catching or clipping, unless he does so purposely. One does not have to touch the queen with his hands whatever, and on this account the scent of a queen is not changed, and she is never balled when she is returned to the bees, as is sometimes the case when a queen is caught and clipped by hand.

The main part of the device consists of a spiral wire cone, made out of small, polished steel wire; it is large at one end and small at the other. In catching, the large end of the cone is placed over the queen, then a tin bottom that is fastened to the wire cone is brought into position under the large end of the cone; the queen is then securely fastened in this cone, and, if one desires, the cone and queen can then be put



or laid down anywhere, the same as if she was in any kind of a cage. When the large end of the cone is placed over a queen, one does not have to wait for her to crawl up. She can, with this wire cone, be picked right up off a comb out of a cluster, or any other place where she can be seen and got at.

The tin bottom to the cone is made and hung in such a way that it is impossible to injure the queen when bringing it in its position to close the cone.

The cone itself being made spiral, and of steel wire, is a very delicate spring up and down, so that in placing it over a queen, it is purposely brought down quite hard upon her, it will not injure her; but the cone is large enough at the large end so that it can be easily placed over a queen without touching her, and the wires are so close together that when a queen is inside she can never get her head between them. The cone is worked, and the queen caught, with one hand, and this can be done with a heavy glove on.

After the queen is in the cone, another part of the device, which, for the want of a better name, we will call a "follower," is inserted between the bottom wire of the cone and the tin bottom. This follower is padded with soft cloth, and with it she is gently urged up towards the small end of the cone. By holding the cone with the small end up, a queen will almost always, of her own accord, go up into the small end. If she does not, by touching her gently with this follower she will, and then when she is confined in the small end in a space about her own length, the follower is stopped, and with a small hook any one or all four of her wings are pulled out between the wires, and with a knife or scissors they can be cut off any way desired. After her wings are pulled out between the wires, she cannot get them back again, neither can she throw her legs up in the way. The wires of the cone do not press against her in the least—she is merely kept from moving backward or forward much, and, as I have said, the follower, as well as the front of the cone, is padded with soft cloth, so she will not injure herself in trying to back or go ahead.

After her wing or wings are clipped, the small end of the cone is removed, and she is allowed to walk out.

Now, from reading this, one might think that to catch and clip a queen with this device is a long and complicated operation; in reality it is very simple. With this device, in the presence of a number of witnesses, I caught and clipped a queen in 20 seconds. But it sometimes happens that in catching a queen one or more workers are caught at the same time. This causes a slight delay, for then it is better to remove the small end of the cone and let the workers out that way, or the hook can be run between the wires and with it they can be pulled out between them; the wires being steel they will spring apart enough for this.

There is nothing about the device that will get out of order, or wear out, except the cloth, which can be easily replaced by any one. One of them will last many years, even if it was used every day.



### Some Suggestions on Several Subjects.

BY J. C. WALLENMEYER.

**CATNIP HONEY.**—W. J. M., of Cedarville, Mo., asks on page 53, what quality of honey is obtained from catnip. Dr. Miller says he does not know that anybody ever had a pure sample of catnip honey. During 1894, my supply of comb honey ran short, and I bought several hundred pounds of catnip honey from C. F. Muth & Son. I had several grocers waiting for comb honey, and immediately delivered to each of them, several cases from the depot without examining it. In this way it was all sold four hours after arrival here.

I began to receive complaints in a few days, which kept up, until I had all the "beautiful" catnip honey returned to me, as being strong, dark, of sickening odor, and other bad qualities. Everyone knows how strong buckwheat honey is—well, it is not half as bad as catnip. I used to think catnip a very fine honey-plant, seeing my bees work on it all the time, but since getting hold of such a bad mess, I condemn it.

**LIQUEFYING HONEY.**—R. C. Alken, on page 55, speaks of the consumer doing his own liquefying of extracted honey, having printed instructions with each package. My experience is that consumers do not want candied honey, will not even try to liquefy it, and any amount of talk is wasted on otherwise intelligent people. Although I offered \$100 to a grocer here if my honey contained a particle of any adulteration whatever, he stubbornly persisted in saying I fed my bees sugar. As long as I supplied him with honey that did not candy, he sold lots of it to his customers. So I made a round

of all grocers every once in a while, and replaced the candied jars of honey. I used No. 50 glass jars, and found they candy more readily than a jar with a cork pushed in tight and tin-foil pressed around it. I can now keep all my honey from candying by pouring hot beeswax on top of it, and corking tight while hot, and it will candy only on very rare exceptions. This is best done by using Muth's square jars, as they have a small "mouth" and do not require much wax.

**BEEES STARVING WITH PLENTY OF HONEY.**—On page 54, E. B. T. asks Dr. Miller the cause of a large colony of bees dying with plenty of honey in the hive. The Doctor suggests queenlessness, and gradual reduction in numbers until a cold-snap finished them. If the good Doctor looks closer, he will see that E. B. T. says "the colony was a large one, and they were 'all dead'." A more probable cause than that given by the Doctor would be, that they starved on account of not being able to reach the honey without breaking cluster. We hear so much of bees starving with plenty of honey. If a Hill's device were laid across the frames, I claim all bees will live as long as there is a pound of honey in the hive. I have learned this by experience. Only the other day I discovered a large colony starved with at least 30 pounds of honey in the hive, while a little nucleus by its side, with only a pound or so of honey, came through the cold-snap all right.

The nucleus had a Hill's device over the frames, covered with enameled cloth, and a super put on full of clover leaves, which retained all the warmth. The large colony had nothing but the enameled cloth, which was glued down to the top-bars, thus keeping the bees from passing over the frames to the much-coveted stores. All our packing will amount to nothing if we do not allow a space for the bees to pass over the frames.

Evansville, Ind.



### Large vs. Small Hives Once More.

BY W. J. DAVIS, 1ST.

On page 34, Dr. Miller says: "Chas. Dadant certainly makes a strong showing in favor of plenty of room in the brood-chamber," etc.

I have read Mr. Dadant's articles on the size of hives with much interest, and while I give him credit for giving his views correctly, just as he views the matter, and in accordance with his experience, yet I regard his views as very misleading to a majority of American bee-keepers.

I am not unmindful of the fact that he can prove his faith in large hives by results, for, if I am not mistaken, he has made a financial success of bee-keeping, and may be one of those "bloated bond-holders"—(a class, by the way, which seem to be increasing of late.) But I opine that his success is due more to location than size of hive, and also to the production of extracted instead of comb honey. I infer, also, from his enormous yields, as reported on page 44—viz., 400 pounds from a single colony in one year. I notice, also, that most of the reports of larger yields reported on page 44 are from the State of Illinois. I very much question whether a single colony in the state of Pennsylvania ever in all her history produced such an amount in a single season. If such a thing has ever occurred and was reported, it has escaped my notice, for I have every volume of the American Bee Journal from No. 1 to the present time.

Though not as old as Mr. Dadant, I have kept bees longer in this country, and kept them in the same locality, and I have tried hives of different sizes, from one holding 24 Langstroth frames, to 12, 10 and 8, the latter of which I now use with the brood-frames shortened five inches in length from the standard Langstroth frames. The favoring condition we lack in western Pennsylvania—the lack of nectar for the bees to gather, the almost total absence of basswood, and the high price of land in the valley of the Brokenstraw, leave but little land for grazing purposes, hence a limited amount of white clover, and no sweet clover to speak of. We would not secure any comb honey one year in five with larger hives.

But notwithstanding all this, we have the advantage of no year being an entire failure, and we have no such thing as foul brood, or bee-paralysis. If I had lived at Hamilton, Ills., I have no doubt I should have used larger hives, and if Mr. Dadant had happened on coming to this country, to have settled in western Pennsylvania he would now be advocating small hives, and his \$200 worth of big hives would be cast aside as mine are.

There is the whole thing in a nutshell. Bees are bees, no matter in what latitude or various surroundings they are kept. But all localities are not alike, neither do all localities

require the same size of hive or the same management, to obtain best results.

Can anyone suppose for a moment that the same kind of hive and same management would apply, whether the bees could work one month in 12, or 4 months in 12, or 8, 10 or 12 months in 12? I think not.

Youngsville, Pa.



### Comparison of Section Comb Foundation.

BY HON. R. L. TAYLOR,

*Superintendent of the Michigan Experiment Apiary.*

In making an experiment with comb foundation, I pursued a course differing in some respects from that pursued in former experiments. In the first place all the samples made by others to be used in the experiment were procured in such a way that none of the manufacturers could know that it was to be used by me except the single one which I will explain here is a foundation made by a machine got up by the A. I. Root Co. to make foundation in imitation of that produced by the Given press though the machine itself is a roller mill. Then instead of using a single sample of Given foundation of my own manufacture for comparison as in former experiments I used two—one was freshly made from wax selected on account of its bright yellow color and its hard, brittle character, from a lot of wax which was mostly purchased, and perhaps from five to ten per cent. of the selection was made from cappings. On account of the character of this wax the proper sheeting of it for use in the Given press was decidedly more difficult than is ordinarily the case, as the sheets were so prone to crack in cooling and when they did not crack they were considerably inclined to roll or crinkle. The other was made last year and was from the lot used in making the test a year ago. In the table the former is simply denominated Given while the latter is called the Old Given.

In addition to the three mentioned I procured a sample from each of the three following manufacturers, viz.: C. Dadant & Son, The A. I. Root Co., and M. H. Hunt.

The method of comparison pursued was the same as was employed in last year's trial. Sections nine to the foot were used in cases holding 36 such sections without separators, the theory, I may repeat, being that the kind of foundation best adapted to such use would be worked first and drawn out farthest by the bees, and so be found to contain the most honey. To make the test a fair one, each case was filled with one of the sorts of foundation selected for the trial and the other half with another sort, the two sorts being made to alternate throughout.

As will be seen, the Given foundation made from the hard yellow wax is the kind selected with which to compare each of the other sorts. The table following, in addition to the dis-

TABLE SHOWING RESULTS OF COMPARISON.

Designation.	No. of Pieces 3 3/4 in. square to the lb.	No. of ft. to the lb.	Weight of 1/4 case of honey lbs. oz.	Per ct. of excess.	Per ct. of deficit.
{ Dadant's...	128	12.49	11 11		6.5
{ Given .....	108	10.54	12 8		
{ Root's .....	112	10.92	11 9	8	
{ Given .....	112	10.92	10 11		
{ Root-Given .....	96	9.39	12 6	3.6	
{ Given .....	104	10.14	11 15		
{ Hunt's .....	120	11.70	10 8	15	
{ Given .....	112	10.92	9 2		
{ Old Given .....	100	9.75	12	23	
{ Given .....	96	9.39	9 12		

tinguishing designation, shows in each case the number of pieces 3 3/4 inches square to the pound, the number of feet to the pound, and the weight of 18 sections. It is hardly necessary to say that the record of each parcel of Given foundation is placed next in position to the record of that sort with which it was compared, thus that treated in the second line of the table was compared with that in the first line, that in the fourth line with that in the third line, and so on.

A word of caution may be necessary lest on a cursory examination of the table some should be misled into fixing the standing of the several foundations considered from the column giving the weight of the honey produced. For instance, in the second line of the table the Given foundation is shown to carry 12 1/2 pounds of honey—the highest amount shown—but that this fact should not be used as an argument in favor of that foundation appears when it is considered that other kinds figure in cases generally less well filled as well as with different antagonists, so to speak.

The columns containing the per cent. of excess and deficit as found from a comparison of each with the "common term"

furnishes a far better criterion. By the use of this it appears that the old Given, though manufactured at least a year before, easily leads all the others in quality. But what is the most remarkable is the great difference shown in the quality of the two samples of Given foundation, and that this is in favor of that sample which had been much the longer made as well as somewhat lighter in weight. No one was ever heard to affirm that age improves the quality of foundation, and with good reason, so the explanation of the discrepancy must be sought elsewhere. Undoubtedly it is to be found in the character of the wax from which the two samples of foundation were made. The hard, brittle character of the wax from which the freshly-made Given foundation came guaranteed its inferiority. If this is true, and it will hardly be questioned, the quality of the wax cuts as great a figure in the quality of the foundation produced as does the method of its manufacture, perhaps more. This suggests important questions for future experiments such as the following: Whence does wax derive the undesirable consistency referred to? Does it come from the character of the honey from which it is produced or from excessive boiling, or from some other occult cause? If the injury is caused by boiling, what amount of heat is effectual in doing the injury? Again, is there any way in which the quality of such wax can be "annealed" by a proper attention to temperature at the time of sheeting it? Is such claim well founded?

Nothing farther need be added in explanation of the table and scarcely more could be said to enforce its lessons.—Review.  
Lapeer, Mich.

## CONVENTION PROCEEDINGS

Report of the Illinois State Convention Held at Chicago, Jan. 9 and 10, 1896.

REPORTED BY ERNEST R. ROOT.

(Continued from page 117.)

### Second Day—Forenoon Session.

#### NUMBER OF COLONIES TO BEGIN WITH.

Question.—"How many colonies should a beginner commence with, in order to attain success?"

This matter was put to a vote, and a majority seemed to think that two was about right.

Mr. Baldrige—The proper answer to this question would depend upon whether the beginner was to have some one to show him. He might then start with four or five. Ordinarily, one will be enough.

#### COST OF PRODUCING A POUND OF HONEY.

Question.—"Prof. Cook states that the cost of producing honey is, for extracted, 5 to 8 cents; comb, 5 to 7 cents. What is included in these cost figures?"

President—Prof. Cook would have to answer this. He probably figured on foundation, hives, labor, winter losses, and interest on the money.

#### DEVELOPING THE HOME HONEY-MARKET.

Question.—"How can bee-keepers best develop and hold the home market for honey?"

President—I will tell you what I did. I put up some honey in Muth jars, and took them to the nearest market. That year there was some of the vilest honey stored that I ever had. I took that and put it on the market. I spoiled the trade. Some of the consumers insisted that the honey was adulterated, and others that it was not good.

Mr. York—But what did you do to hold the trade?

President—I didn't hold it!

Mr. Schrier—I sell all my honey at home. It advertises itself so well that I frequently get mail orders for a second lot. If, however, I send honey away, it is always the best. Around home I can sell almost anything, because people all know me; but the honey must be clean. I find I can sell dark as well as light honey.

Question.—"What is your usual crop?"



Mr. Schrier—From 90 to 100 pounds per colony.  
 Mr. York—Could Mr. Schrier sell more if he bought it?  
 Mr. Schrier—I bought some of a Chicago honey dealer and sold it. I have no trouble in selling what I buy, so long as I stand back of it and guarantee it.

President—As a rule, which is better—to sell comb honey or extracted?

Mr. Schrier—Comb honey.

President—Let's see the hands.

A vote showed by a considerable majority that comb honey was the easier-selling article. A few thought they could sell extracted easier.

President—A poor article of extracted does not sell as well as a poor article of comb.

#### CAUSE OF BEE-PARALYSIS.

Question—"Is bee-paralysis caused by a diseased queen, or by the food consumed by the bees?"

President—I have had but very little experience. At all events, I do not regard it as of much consequence. While it does not trouble me, I know it is a serious matter with some in the South.

Mr. Root—No one seems to know the cause of bee-paralysis. Some think it is a disease inherited from the queen, and therefore that the removal of the queen will cure it. Others take the view that the bees get something from the blossoms that causes the trouble.

Mr. Wheeler—One year, somewhere about the first of June, my bees began to take some sort of disease, and died. I got that year no honey to speak of; and the bees in all my apiaries were affected. I made up my mind that they were getting something from the field that caused the trouble. They did not look like robber-bees, nor did they seem to be bloated, as in the case of those affected by bee-paralysis.

Mr. Root—Some seasons, in early summer, I have seen the same thing in our yard. A close scrutiny in the grass would show bees crawling up the spears of grass and attempting to fly, they drop down, only to repeat the operation. In fact, sometimes I have seen the whole yard in the apiary pretty thickly dotted with the bees in the grass. We could not account for it at the time, but supposed that the bees were getting something from the fields that was making the trouble. Reports have come in showing that this is a real disease, and that others have been bothered by it certain seasons.

Mr. Baldrige—That same malady appeared among my bees one season.

#### CURING FOUL BROOD.

Question—"Will foul brood cure itself in a good honey-year?"

Mr. Thompson—Yes.

Mr. Root—Yes.

President—Did the disease re-appear after it went away?

Mr. Thompson—No.

Mr. Walker—I had this year as good a honey-flow as I ever had, yet foul brood made serious havoc among my bees. However, a good honey-flow does seem to have quite an effect in diminishing the virulence of the disease; but it does not cure it with me. The past season I felt that I could not treat the colonies as recommended by Mr. Root—that is, put them on foundation in clean hives—so I cut out the diseased spots in the combs, and burned them. I followed this up for three or four weeks. Some colonies seemed to be cured, and in others the trouble re-appeared. It is hard to lay down absolute rules to apply in all cases.

President—The Germans recommend formic acid for curing foul brood; and as this is supposed to be present in honey, it is possible that a honey-flow helps to cure the disease, owing to the presence of this same acid.

Mr. Baldrige—I think the point is right here: During a honey-flow the bees do not use diseased honey, but they use good, pure, clean honey.

#### SHIPPING AND SELLING HONEY ON COMMISSION.

Question—"When comb honey sells on South Water Street (Chicago) for 1½ cents, what will it net the producer?"

Mr. York—The honey will net the producer just about 10 cents.

President—We have a blackboard here, and suppose we put down some of the items of expense. Now, first, what ought we to put down for cost of freight?

Mr. Walker—Well, that depends on how far the honey is to go; but somewhere about 40 cents per 100 pounds.

President—Then we will put down 4/10 of a cent as freight. Now, what is the usual commission?

Mr. Walker—Some charge 5 and some 10 per cent.

Mr. Draper—I had rather pay 10 per cent. commission, and get better prices.

Mr. Wheeler—I get just as good prices, and pay only 5 per cent. commission.

After a good deal of discussion, in which all the members participated, the following table appeared on the blackboard:

Selling price of honey per pound.....	.14
Freight.....	.004
Commission at 10 per cent.....	.014
Cartage.....	.002
Loss in leakage.....	.007
Shipping-cases.....	.010
Total expense.....	.037 .037

Net cash to the purchaser.....103

Mr. York—There! didn't I tell you?—just about 10 cents per pound.

#### MOVING AN APIARY A SHORT DISTANCE.

Question—"I have a small apiary that I desire to have removed ten rods, more or less, to another location. How can I do this without loss of bees?"

Mr. Wheeler—Put them into a cellar. Keep them there over winter, and then move them in the spring to where you want them.

Mr. Green—But the question seems to imply that the bees are to be moved immediately. I would say, first, remove the bees all at once, and then remove, so far as possible, all traces of previous landmarks. In the new location, set the hives in the same relative position.

Mr. Baldrige—I would move them when they were flying the thickest—say about the middle of the day. The air will then be filled with bees, and they will then find their location. They might not all go back to the same hives, but that would not matter much, for they would equalize. If in any case they do not equalize properly, change the location of a weak and a strong colony—putting the weak one on the stand occupied by the strong, and the strong on the stand of the weak.

Mr. Green—Common bees will find their location much quicker than Italians.

Mr. Wheeler—Give each colony a ride on a wheelbarrow for about a full hour. Jolt them about a good deal, and then when they are set on their new location, they will stay where they are put.

Mr. Baldrige—I have not time for that.

Mr. Wheeler—This plan that I have just spoken of is Mr. Doolittle's idea. He aims to excite the bees so that, when they are given their freedom on their new location, they will mark that location.

Mr. Draper—When I move my bees to Spanish-needle I fasten up all the hives during the day, and move at night. At that time the bees do not bother the horses. For a day or two after they are set on their new location the bees are cross, I tell you.

#### BEST WIDTH OF ONE-POUND SECTIONS.

Question—"What width of one-pound section, 4¼x4¼, will be most profitable to use?"

Mr. Green—I think 1¼ is a nice width, holding ¾ pound, when separators are used, and sells for less than a pound. It is more likely to be of uniform weight than the heavier section.

President—The Canadians, you know, prefer a narrower section—that is, 1¼, or 7 to the foot.

Mr. Wheeler—I use and prefer 1¼.

President—Why?

Mr. Wheeler—For the same reason as Mr. Green; and, moreover, these narrow sections are more quickly capped over, and I find I get with them fewer unfinished sections.

Mr. Draper—I prefer a 2-pound section, 2 inches wide. It looks bigger.

President—At first I wanted my sections to weigh a full pound; but now I find the dealer wants something holding a little less than a pound—just near enough a pound to make the consumer think he is buying a full pound when he is not. That is cheating. I should want something that would weigh at least a full pound, or at least so much less that the consumer will not be fooled.

Mr. Green—Grocers around us prefer ¾-pound weights. I sell by the section generally, although a few buy by weight. When they buy by the section they know just how much each is costing them, and what their margin of profit is; but they do not always know, when it is bought by the pound.

Mr. Wheeler—I sell by the section.

Mr. Baldrige—I think the majority prefer to sell by the section.

President—Let's have an expression from the convention,

and see what width of section,  $4\frac{1}{4} \times 4\frac{1}{4}$ , seems to have the preference.

A show of hands revealed the fact that 7 to the foot seemed to have a little bit the lead in the preference; 13 came next; after that, 14.

#### NUMBER OF BROOD-FRAMES DURING THE HARVEST.

Question.—“How many combs, Langstroth size, should be left in the brood-chamber during the harvest for comb honey?”

In answer to this, the President called for an expression. The majority favored the 10-frame size—that is, the majority who voted at all. Mr. Green and Mr. Wheeler thought one section of the Heddon hive sufficient, which would be equivalent to 5 Langstroth combs.

Mr. Walker—Does not Mr. Green have swarming from those shallow cases?

Mr. Green—Yes, sir; but I give them another story, or half section, if they need room.

Question.—“How many reduce the brood-room of an old colony during the harvest?”

An expression from the convention showed that there were but very few who did so, while the majority did not.

Question.—“How many hive their swarms on less than the full brood-room?”

A call for an expression showed that the majority did so.

#### ADVERTISING FOR COMMISSION-MEN.

Question.—“Should the bee-papers accept advertisements of commission-men, soliciting shipments of honey?”

Mr. Green—There is no more reason why they shouldn't, than that the publisher of any trade-journal should not solicit advertisements from people connected with their trade.

Mr. Mandelbaum—The firm I represent has bought largely on commission, but in the future we propose to buy outright. In answer to the question, I think bee-papers should accept advertisements from commission-houses. It is the bee-keepers' own fault if he gets caught by unreliable parties.

Mr. Newman—I should answer the question in the affirmative, providing the bee-papers have investigated the standing of the parties who desire to advertise. The mistake is very often made by the bee-keepers themselves, in not investigating the responsibility of houses that may or may not advertise. I know several parties who have shipped to irresponsible firms; as a result, they have suffered by it. Bee-keepers should go to the banks and ascertain the responsibility of the commission firms that they are not acquainted with. If such firms are not quoted, they should not be trusted.

Mr. Mandelbaum—If any bee-keepers have accounts with commission-houses from which they cannot collect or get satisfactory returns, the firm I represent will be willing to aid them if in their power.

Mr. Walker—Referring to Mr. Newman's point, I would say that a high-quoted firm is not necessarily safe. I want to know whether they are honest.

Mr. Newman—But when you go to the banks you can find out their credit. It is not their capital, but their credit, that should be taken into consideration. Give me the standing of a man who has honor and credit, and I will not be afraid to trust him.

Adjourned to meet at 1:30 a.m.

[Concluded next week.]

**A New Binder** for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 15 cents. It is called “The Wood Binder,” is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

If any one desires two of the Binders—one for 1895 and one for 1896—send 25 cents, and they will be mailed to you.

**The Alsike Clover Leaflet** consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 25 cents; 100 for 40 cents; or 200 for 70 cents.

See “Bee-Keeper's Guide” offer on page 143.

## Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

### Gnawings of the Cappings.

My bees are on the summer stands, and are all right except one colony. I was looking at them last week, and found that one colony had fallen comb at the entrance; I looked in and found that the queen was dead, and the bees were eating off the comb. I found plenty of honey and pollen. What is the matter?

H. M. P.

Keysburg, Ky.

ANSWER.—In winter there is an accumulation of the gnawings of the cappings that the bees let fall. This, however, you would find at all the hives, and is a little like ground-pepper in appearance. If bits of comb are found a fourth of an inch in size, then the mice have probably been gnawing the combs. It's a good plan in winter to have the entrances closed with wire-cloth having three meshes to the inch. This will stop the mice, but allow bees to pass. It would be hard to say what caused the death of the queen.

### Some Sweet Clover Questions.

1. Can sweet clover be sown in the spring, so as to get a crop of hay the same year?

2. Would sweet clover be likely to do well in the vicinity of Boston, on rather light land?

3. Is there any other clover that could be sown in the spring so as to give a crop of hay and also to be useful as a honey-plant?

4. If sweet clover was plowed under in the fall, after it had gone to seed, would it come up in the spring?

F. C. J.

ANSWERS.—1. I have had it grow two or three feet high the first year, and it would have made a fine crop of hay, possibly two crops. But it doesn't blossom till the second year.

2. I couldn't be certain about it, but I should expect it to do well. Mrs. Harrison reports that down in Florida it will not prosper, but that's the only report of the kind I ever heard.

3. Possibly crimson clover might fill the bill, although most say it should be sowed in the fall. It is expected to grow only the one season, whether sowed fall or spring.

4. I've had a fine stand by having such ground plowed in the spring, and I see no reason why it would not do just as well if plowed in the fall.

### Producing Extracted Honey—Fumigating Combs—Building a Honey-House.

1. In working for extracted honey, would you advise the use of half-depth frames in supers, or full-size Hoffman frames, the same as are used in the brood-chamber?

2. In fumigating your frames of combs, how much sulphur should be used to a given number of frames? Is there danger if a little too much sulphur is used?

3. I want to build a honey-house. Would you kindly give me a few dimensions and instructions necessary for the purpose? I want it large enough to accommodate the work necessary for 15 or 20 colonies.

I am almost a beginner, and would appreciate as minute instructions as your time will allow in the matter of the honey-house, or anything in the line of extracted-honey advice.

J. M. H.

Mt. Vernon, Ind.

ANSWERS.—1. I don't know which to advise. The half-depth frames are better. In giving additional super room it is better to have shallow frames, so as not to be obliged to give so much room at a time, and indeed it is better not to have so



much surplus-room the first time. The shallow frames are more convenient to uncap. I think it is said the queen is less likely to go up and lay in shallow frames. But it is expensive and inconvenient to keep a set of frames especially for extracting. If you use the same kind of frames as you use in the brood-chamber, you can change from one to the other, so a smaller number of frames will be necessary, and the frames can more easily be all kept in use all the time, and that's better for the combs. But another thing is, that some think that the honey is affected by the old combs in which brood has been reared, and if that be true, then the combs used for extracting should never have brood in them. On the whole, the matter stands in this way: It's better to have shallow frames for extracting, but if you don't want to stand the expense you can get along by using frames the same as in the brood-chamber.

2. It isn't so much a matter of the number of frames as it is of the amount of room in which they are placed. If a thousand combs require a given amount of sulphur, it will take just as much sulphur for a single comb if that single comb is put in the same room. If there are big worms to be killed in your combs, you can hardly use enough sulphur, and if they have just been hatched from the egg it will need very little to kill them. At a rough guess, perhaps a pound of sulphur may be used for a room 10 feet square.

In smoking section honey, there is danger of making the nice, white comb green if an overdose of sulphur is used, but you would probably do no harm by any amount for brood-combs.

3. For 15 or 20 colonies you'll want a room not much smaller than you would need for five times as many. Of course, more room is needed to store the increased amount of honey. Moreover, there's no certainty that you will always be of your present mind as to keeping so few colonies, and it is more comfortable to have plenty of room, and a large room costs less in proportion than a small one. You could get along with a room 7x7, but I wouldn't want it less than 10x10, and larger would be still better. Figure to have plenty of light, and that will at the same time give you plenty of chance for ventilation. Have it convenient to the apiary, and the lay of the land will have something to say about that. Be sure to keep in mind that you may want to drive a wagon close up to load and unload. So general is the question that it is not likely all points would be covered, no matter how long the answer, and any special questions you may think of will be cheerfully answered so far as ability goes.

#### Sawdust Packing in the Spring.

Is it advisable to place sawdust on the top of the brood-frames for the protecting of brood during the spring? Last spring I took the frames out of the half stories, and placed them on the hives with the oil-cloth over the brood-frames, and filled the half-stories about half full of dry sawdust. If this is advisable, how long should they remain on?

Peasleeville, N. Y.

W. H. E.

ANSWER.—I should think it might be of some benefit, although I wouldn't like to be very positive about it. Why not try some hives with, and some without such covering, and compare results? I'd take off the sawdust about the time to put on sections, or a little before, according to convenience.

#### Wants to Produce Only Beeswax.

What do you consider the best plan to secure the most wax? Bees do well here. Besides a fair yield during the regular seasons, they usually gather some honey and keep up brood-rearing the entire winter, but there is very little sale for honey at any price, while wax sells readily at 50 cents per pound. I have no extractor. What do you think of feeding back honey in comb? and how should it be done?

About how many pounds of honey should make a pound of wax, when fed to the bees? About how many pounds of wax should a strong colony make per annum if worked for wax alone.

I suppose in working for wax I should increase as fast as practicable. If so, what is the best plan to pursue?

Monte Morelas, Mexico.

W. H. C.

ANSWER.—I don't know enough to attempt any answer to some of your questions, and practically know very little about working for wax alone. Whether it can be made profitable or not can only be decided by trial. In the States it is hardly worth the trial, but in Australia it has been thought of. With poor sale for honey, and wax at 50 cents, it's certainly worth the trial.

I think I should try somewhat after this fashion: Have a hive of such size that the queen would have a fair chance to lay and still leave a little room, but very little. As soon as the hive is filled in spring, or a little sooner, add a second story below with starters. I think you'll find the bees build down comb quite rapidly. Cut away the combs as fast as built down, every two or three days if you can stand the work. These combs will have very little honey in them, and will give wax of the finest quality. There may be danger that the combs in the upper story will become filled with honey to such an extent that brood enough will not be reared, so it may be well to keep an eye on this, and either cut out or extract the outside combs occasionally.

Probably the best way to feed back the honey would be to dilute it a half and feed in the open air, providing, of course, other bees don't get it. Otherwise the Miller feeder, or the crock-and-plate feeder would work.

Now, mind you, I'm only guessing at what is best to do.

#### How to Insure Sections of Honey Shipping Safely.

I wish we could get the collective wisdom of our sages on this matter. But, then, to the confusion of the tyro, their opinions differ so on this, as on most other matters. For instance, B. Taylor, in his Toronto essay, says he fills his section with "moderately heavy foundation," and boastfully remarks that he has sent 200-pound lots 700 miles with three railway transfers without a single section breaking down. Had the "moderately-heavy foundation" anything to do with insuring this safety? Also, had the *viscidness* of the honey (as a result of 60 days storage in an iron-house with free air circulation) anything to do with it? Does he use spiral springs for his crates, or corrugated paper, perhaps? I wish he'd be less tantalizing, and a trifle more explicit. These big fellows just hint at things—in a rather supercilious sort of way—telling us youngsters just enough to make us long to know more. I wish you would "squeeze" B. T. a bit on this point.

I said just now that the opinions of our leading lights differ so vexatiously on many minor—aye, and on many major points, too. Now, at this same Toronto convention we have Allen Pringle telling us most emphatically that it is a mistake to use full sheets of foundation, or anything beyond the merest starters, in sections. I wonder if A. P.'s sections travel, as a rule, as safely as Mr. Taylor's. And here let me pass in my humble thank-offering to both these gentlemen for their highly interesting and very valuable essays. These "old boys" take a deal of trouble to give us youngsters, in their essays, the benefit of their long years of experience, and deserve every individual bee-keeper's special thanks.

You would appear to have hit upon a good "dodge" of strengthening sections of honey for traveling by using a top and bottom starter. I mean to try it. What thickness of foundation do you recommend for these starters?

South Africa.

S. D.

ANSWER.—I have generally used the same thickness of foundation in both top and bottom starters. I don't like extra-thin foundation for either place, but if I used it for top starters I certainly would have something heavier for the bottom. Indeed, when I use thin (not extra-thin) foundation at the top, I like for the bottom something a little heavier, or perhaps more properly something with higher sidewalls, so it will not be so likely to topple over.

#### Getting Bees Out of a Chimney—Separators.

1. What is the best plan to get bees out of a chimney, either just located, or of one or two years' standing?

2. Will bees work better in sections with no separators? I always use full sheets of Van Deusen thin foundation.

Last season was a good one with us. I took 4,932 pounds from 50 colonies, spring count. They swarmed but little.

UTAH.

ANSWERS.—1. Sometimes the boarding can be cut away, then by the use of smoke the combs can be cut out and all removed. If no cutting is allowed, then perhaps the easiest way to drive out the bees is by means of carbolic acid. Bees cannot stand the fumes of this, and as soon as it gets too strong they will make for the open air.

2. Possibly there may be a shade of difference, at least in theory, but it isn't enough so that you can detect it in actual practice.

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## EDITORIAL COMMENT

**The California Bee-Keepers' Exchange** is now started. Mr. Martin tells about it in his interesting article on page 129. Those plucky Californians will be eagerly watched from now on, for if their new venture proves successful we do not see what is to hinder its imitation in nearly every part of the country.

We believe the leading bee-keepers of the Golden State are on the right track. We hope so, for we would like to see the new Bee-Keepers' Exchange develop into a grand institution for the advancement of the financial interests of all its members, by way of disposing of their crops of honey more satisfactorily, and also in the purchase of the necessary apiarian supplies. If bee-culture is to be successfully prosecuted as an industry, the cost of production must be lessened, and then at least a fair price be secured for honey.

We believe the Bee-Keepers' Exchange is a move in the right direction, and we are anxious to see it succeed. The Bee Journal is ready to do whatever it can to aid California bee-keepers, and no doubt it will have the privilege of keeping the members of the Exchange informed regarding the movements of their new organization from time to time.

This will be a good time for every California bee-keeper to subscribe for the American Bee Journal, if not now receiving it regularly. We don't know where they will find more genuine bee-information for the money—52 weekly numbers for only \$1.00. 'Tis so ridiculously cheap that no real bee-keeper can afford to be without it, no matter where he lives.

For a short time we will be able to furnish all the back numbers from Jan. 1, 1896, to new subscribers.

**Selling Another's Honey as Your Own.**—After reading our several editorials on selling another's honey, one of the Bee Journal's many friends writes us as follows:

MR. EDITOR:—Will you pardon me, if I ask you to turn back once more and carefully examine the question asked by "Missouri," about "one bee-keeper selling another bee-keepers' honey," page 675? The question is so involved that a careless reading might give one the wrong impression, and a first impression is sometimes hard to correct when it is wrong. And just that sort of thing has happened, I think, with you, Mr. Editor, and also with some of those who replied. The question is, "Would it be right?" and the majority of those who reply answer more or less directly, "No." You say, "Yes." I do not believe you have a different standard of right from that majority, and I feel sure that you will answer with them when you answer the question that is asked, and not the one that you mistakenly supposed to be asked.

Just look and see what is asked. "Would it be right?" Would what be right? From what you repeatedly say you take it to

mean buying from another to sell again. No one questions that—not one of those who replied. That isn't the question at all. The question is "Would it be right to sell honey under such circumstances?" Getting the twists out of the question, it is, "Would it be right to sell honey" bought from another "provided I should put my name on it and make my customers believe it is from my apiary?" Instead of answering that question you go to talking about the simple matter of buying to sell again, which has nearly as much to do with the question as if you should argue that I should sell my crop of honey instead of having it all used up on my own table. If you had looked at the real question, I don't believe you would have been so "Hasty" in your remarks on page 24.

HONEY-PRODUCER.

Well, Mr. Honey-Producer, we have taken your advice "to turn back once more and carefully examine the question" asked and answered on page 675 of the Bee Journal for 1895, and we must candidly admit that we did not consider seriously enough the part of the question which reads, "and make my customers believe it is from my own apiary"—really meaning that it was produced by the seller. Why, of course, that would be wrong. And we don't believe those of the repliers who even intimated that it would be right, were any more careful than we were in reading the question. But we are just as certain they are as much opposed to any and every wrongful act as are we.

After saying the above, it looks very clear to us that we owe, and hereby tender, Mr. Hasty an apology for writing as we did concerning him on page 24. While doing this, we would say, however, that we think Mr. H. went a little too far when intimating that certain good people were "rascals."

Although it ought to be unnecessary to say it, we will repeat our statement on page 57, viz.: *It is not right to deceive under any circumstances!*

**The Bee-Supply Manufacturers**—the largest—were shown in last Gleanings, by way of portraits of all the principal members of the several firms. Mr. G. B. Lewis and Mr. C. E. Parks (now deceased) represent The G. B. Lewis Co.; Mr. W. T. Falconer and Mr. D. E. Merrill, of The W. T. Falconer Mfg. Co.; and Mr. R. B. Leahy and Mr. J. E. Gladish, of the Leahy Mfg. Co. The six pictures make an excellent showing of the manufacturers of supplies used by bee-keepers. If to the foregoing are added The A. I. Root Co., then the list would be complete. Of course there are many who manufacture on a small scale, and are excellent firms, but we presume Gleanings aimed to "show off" the "big guns" in the supply manufacturing line. It was a decided success, and we congratulate our esteemed contemporary upon its enterprise and general "git-up-and-gitness."

**"The Honey-Bee: A Manual of Instruction in Apiculture."** By Frank Benton, M. S.—This book, already mentioned, is issued as Bulletin No. 1, New Series, U. S. Department of Agriculture, Division of Entomology. It is 6x9 inches, paper cover, 118 pages, 11 of them being blank, the obverse of the beautiful full-page engravings. As already mentioned, the many illustrations are exceedingly fine, there being 88 in all, including the 12 full-page plates. Of course, some of the engravings are the old ones, with which all readers of bee-books are familiar, but most of them are new, more than 30 being original. On page 33 are three cuts that seem to be put in to fill up, no reference being made to them in the reading matter. They represent the manner of handling a frame so as not to have the comb break out—a manner of manipulation that it is hardly worth while to give in these days of wired frames.

The book is divided into 12 chapters, treating of Classification, Kinds of Bees, Manipulation, Establishing an Apiary, Hives and Implements, Pasturage, Spring Manipulation, Securing Surplus, Queen-Rearing, Increase, Wintering, Diseases and Enemies.

The author sets the amount of honey necessary to produce a pound of wax at a higher figure than many do in these latter days, saying that 18 to 20 pounds are necessary to produce a pound of white comb.

The use of the quilt is taught as one of the regular things, although in the most popular hives of the present day no quilts are used. Possibly the extra warmth obtained through quilts would more than repay their extra trouble.

Here is an extract with regard to the use of the veil that some would do well to consider: "To dispense entirely with the bee-veil is a more important consideration, especially to the professional bee-master, than is at first apparent to the inexperienced. Its use injures the eyesight seriously, especially where one is obliged to strain his eyes for hours to see eggs, larvae, etc., in the cells; to hunt out queens and queen-cells, and adjust frames. Besides this, the hindrance to rapid work which the veil causes, as well as the great discomfort of wearing it for hours during hot weather, are considerations worth weighing."

The statement, "If the combs are so old as to be nearly black and to show cell-walls much thickened, they are very objectionable," would be more readily endorsed in England than in this country.

The author has evidently given much attention to the matter



of honey-plants, and he strongly recommends to bee-keepers in Middle and Northern regions a trial of Japan and sulla clovers. A list of honey-plants is given for the North above latitude 40 degrees, for the South below 35 degrees, and one for the Middle section between 35 degrees and 40 degrees. The relative importance of the plants is shown by four different kinds of type. The most important, given in full capitals, are, for the North—raspberry, white and Alsike clovers, linden and buckwheat; for the Middle section—tulip tree, sourwood, alfalfa and sweet clover; for the South—white sage, horsemint, sourwood, saw and cabbage palmetto, black mangrove and alfalfa.

For full sheets in sections, "thin" foundation is advised on page 80, and "extra thin" on page 55.

The author says he has seen 350 queen-cells constructed at one time by a single colony in Tunis. Henry Alley thinks only ten or a dozen good cells can be reared at one time in a colony; but Mr. Benton thinks a large proportion are good in colonies that have several times as many. There are good reasons for believing that the latter is correct in his views. With the right condition, he says "there need be no hesitancy in permitting the construction of hundreds of queen-cells in one colony, if such numbers are needed."

Clipping queens is spoken of in such a way as might mislead the novice to think a queen should be clipped annually.

A good point is given on page 98 which is perhaps new. After removing the old colony to a new location after swarming, introduce a young queen within a day or two. This will secure the destruction of the queen-cells, whereas if the colony were left till the first queen hatched out, it might have enough bees added to its numbers as to warrant swarming.

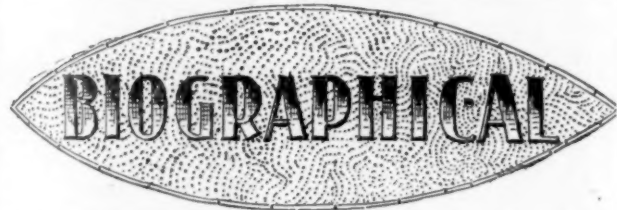
Some would take issue with Mr. Benton when he advises, at the time of dividing, that the queenless part be left on the old stand.

The plan of dequeening during the honey-flow is not commended, but the author recommends replacing the old queen early in the season with a queen of the same season's rearing.

He has no sympathy with the "pollen theory," and is on the safe side in recommending 40 pounds of winter stores in Northern regions.

On the whole, this book, with its large, clear type, and its plain putting of correct teachings, is a real credit to the author and the Department of Agriculture.

**Dr. Peiro's Hints.**—In reply to letters of enquiry received from subscribers of the American Bee Journal, we wish to state that though Dr. Peiro cannot continue his "Medical Hints," as in the past, he may be expected to touch upon the most recent medical topics as they occur, from time to time. Further, that he will be glad to reply to all enquiries, giving medical advice desired by our readers, the only consideration being the enclosure of enough stamp for return postage. Address, as before—Dr. Peiro, 100 State St., Chicago, Ill.



### Mr. A. W. Swan and Apiary.

Mr. A. W. Swan was born in Story County, Iowa, in 1858. He spent his early boyhood days on the farm, receiving a common school education. With his parents he moved to western Kansas in 1873, there enduring the disadvantages of pioneer life. While only a boy he developed a remarkable ability for broom-making, and though serving no apprenticeship, by his own ingenuity and persistent effort he has won success.

In 1880 he moved to Nemaha county, Kans., and was married to Miss Orcelia Jackson shortly after. Together they built up a pleasant home in Centra, and when the future looked bright, and all seemed fair to lead to success, the happy home was blighted, and the wife was called to that better Home beyond, leaving the husband, and daughter of 13 years, to toil a little longer, and experience that great lesson—"learning to labor and to wait."

A few years ago Mr. Swan became interested in bee-culture; believing that he could make a success of this work, he purchased 30 colonies of bees, and by obtaining aid from reading the bee-papers and thoroughly studying the actions of the "busy little bee," he has built up his apiary until it is the best in Nemaha county.

He finds no difficulty in disposing of his honey, and has always received a good price for it.

Mr. Swan is an ever-ready talker on the subject of bees, and is delighted with the work. E. L. S.

The foregoing biographical sketch was kindly written by Miss Emma L. Swan, sister of Mr. S. In the following, Mr. Swan, himself, tells us about some of his bee-keeping experience:

In the spring of 1893 I bought 30 colonies of bees in extra large hives. Not knowing very much about bees I left them in the large hives, and have 16 of them in my apiary yet, as will be seen in the engraving. It is a deep hive, the frames being 11x15 inches, outside measure, or 10x14 inches of comb space in each frame. There being 10 of these frames in each hive, it makes 1,400 square inches of brood-comb. With close observation I found 900 square inches occupied by the queen in the height of brood-rearing, leaving a balance of 500 square inches for the bees to store honey in, consequently the bees are very slow to commence work in the sections—until the best honey-flow is over.

Bees winter well in these large hives on the summer stands, without any protection, having their winter stores directly over the cluster, which is very essential to successful wintering on the summer stands. The only way such hives are profitable is by getting large swarms from them, and then hiving them in 8-frame hives with full sheets of foundation in the brood-frames, and in three days put on one a super of sections filled with extra-thin foundation. By so doing I get from 24 to 48 pounds of choice comb honey in one-pound sections from a prime swarm. This is the result of actual practice, not theory.

Finding that bees paid me better in 8-frame hives, I transferred the bees and comb from 14 of these large hives in May and June, 1895, and in August I took off 560 pounds of choice comb honey in one-pound sections, nicely finished. At the same time I took 300 pounds from the 16 large hives, in 400 sections finished up in all shapes, leaving me 150 sections that were not fit for market. So, with the experience I have, I shall adopt the 8-frame hive, or in other words, the Hoffman frame, no matter what kind of a hive so it is not too large—not over nine frames for the brood-chamber.

I winter all my bees on the summer stands, with very little loss, if they have plenty of good stores, plenty of young bees, and are properly packed. I believe in late brood-rearing, so that the hives will be full of young bees at the beginning of winter—at least this is my plan, and my bees are wintering nicely. On the first day of January, this year, it was a nice, warm day, and the bees had a cleansing flight, and were carrying out very few dead bees.

The majority of the honey in this part of country is from sweet clover, which grows in all waste places, fence-corners, lanes, streets, and alleys for miles around my place, and it is alive with bees while it is in bloom. This "weed," as the farmers call it, is our best honey-plant—without it I would not keep bees in this locality, as there is nothing else for them to work on after fruit-bloom in the spring until heart's-ease and buckwheat bloom in August.

As I do not make a specialty of bee-keeping, the bees do not get the attention they should have, but with the care they get they pay me very well. A. W. SWAN.



### Hive-Numbers and Record-Books.

Now, it seems to me just about as necessary to number or name colonies of bees as it is to name people. If I had to stop and describe each colony of bees by some peculiarity of hive or location every time I wanted to refer to it, instead of saying No. 12 or No. 9, I believe I should get discouraged, and just give up. It seems to me a bee-keeper's time is too valuable to be wasted in that way.

But if there were no other reason for it, I should want them numbered in order that a record might be kept. You know when children dispute with regard to their ages they are always referred to the family Bible. Well, when we want to be sure of our queens' ages we refer to the record-book.

Suppose I go to a colony and find that it is queenless. Is the record-book now of any use to me? Of course it is. I can take the book and look and see if there is any colony I can go to for queen-cells, tell how ripe they are, tell whether it's a colony I want to breed from, whether it's gentle or cross, whether they are good workers or not; in fact, tell all about them.

With a record-book you can sit down and map out your day's work, and know just what you're going to do beforehand. In fact, I don't see how any one can get along without one. If we should forget ours when we go to the out-apiaries, we should have to go back after it, and it would be a difficult thing to keep a record-book without having your colonies numbered.—EMMA WILSON, in *Gleanings*.

### Emptying Honey-Cans.

No doubt, most bee-keepers have at times had experience in emptying honey from five-gallon cans into smaller receptacles, and know that to tilt the can up each time a jar is filled, and again lower it, is quite some work. The honey-gates made of tin and leather, such as the Roots sent out some years ago, were quite handy, but just about the time one has a supply of these on hand, he will have to have some new cases, and the chances are that these will have a different-sized screw cap, and his gates will not fit them. Now, let me tell you how to manage it without a gate:

Stand the can on a box, chair or table, far enough from the edge so that when you lay the can over on its side it will project four or five inches over the edge of the table, unscrew the cap, take a smooth piece of section that is not warped, (any other small piece of board will do), place it over the mouth of the can and lay it (the can) down on its side while you hold the piece of section firmly in its place. Now you want an assistant to hold the jars or cans, or at least someone to hand them to you; hold the jar under, and slide the section-piece up until the honey flows out as fast as desired. Usually it will not flow too fast, if opened entirely. When the jar is full, slide the piece down and cut off the flow while you take away the full jar and put an empty one under, and so on. If the honey is not too thick, it will take you less time to fill a number of jars than it has taken me to write this. Try it.—S. E. MILLER, in *Progressive Bee-Keeper*.

### Longevity of Bees.

C. Davenport says in *Gleanings*: "One summer I had a strong second swarm issue from a large box-hive. I do not remember the date, but it was just before basswood blossomed. The queen of this swarm was lost, on her mating trip, or in some other way, for I am certain that they did not have a laying queen at any time during the summer. I thought I would let them do without one, to see what they would do. They were hived on combs that contained considerable honey, so they did not have much room to store below; but they filled up what room there was, and then, instead of working much in the sections, they took the world easy.

"In the fall I thought I would unite what few of them were left, with some other colony; but on coming to examine them I was surprised at the amount of bees there was left. There seemed to be nearly as many as when I hived them; so in order to experiment further they were put in the cellar, where the rest were. They came out in good shape in the spring. A queen was given to them; and although they dwindled away very fast, they pulled through all right.

"Now, in this case the workers lived at least 10 or 11 months, not only a few, but thousands of them. But they would not do so every year. If the same thing had been tried the past summer I do not think there would have been a live bee left after they had been in the cellar a month."

### Using Unfinished Sections.

Says B. Taylor in *Gleanings*: "Now I will try to answer pointedly Dr. Peete's questions. You, see, Doctor, the sections which I use for extracting and using again were got from the supers I must necessarily use in saving the honey-crop, and not only without extra work or loss, but with an actual saving in both, for we avoided the swarming trouble, and did not curtail, but increased, the general surplus crop, and even the crop of finished comb honey, so there was no waste of work here. After the honey is extracted from the sections they are returned to the T supers, and on a warm afternoon are all set out at once in the open air; and by dark every section will be cleaned of every particle of honey by the bees, ready for the comb-leveler. Two hours' work will accomplish all the work of having thousands of combs cleaned; but the leveler must be used on every comb. Surely that will be a big

task. No; it is but little more work than to properly fill sections with full sheets of foundation, especially where two pieces of foundation are used in each section; and the comb-honey producer who does not use two pieces has not yet learned his trade; so there is but little if any extra work or loss in leveling or using the drawn combs again."

### Honey in Butter.

When the butter is salted, add a little sugar or honey, about half a tea-cup full to five or six pounds, and see what a nice flavor it gives to the butter.—MRS. HALLENBECK, in *Progressive Bee-Keeper*.

### Apicultural Nomenclature.

I am glad to see the disposition on the part of bee-keepers to use shorter terms in designating various articles and operations in the apiary. Dr. Miller, in the *American Bee Journal*, in place of the circumlocution of saying "carrying bees into the cellar" would "cellar them." He does not say what term he would use when he would take them out; but reasoning from analogy he would "uncellar" them. Perhaps this would be carrying matters a little too far.

So far the new nomenclature includes the word "cellar" as a verb—to put bees into the cellar; "queen and unqueen" for "supplying a colony with a queen and taking one away;" "floor" instead of "bottom-board;" "queen-bar" instead of "queen-excluding honey-board." I am not sure that the substitutes for the last two terms are sufficiently descriptive to be readily understood. I shall be glad to receive a list of short words that are perfectly plain as to their meaning, in place of the longer circumlocutions we are now using. By the way, in York State I heard the bee-keepers using the term "boxing a colony," instead of the longer term, "putting sections on a colony." They almost invariably used the term "boxes" instead of "sections." In the West I have heard the expression "supering" for putting on sections or extracting-supers.—*Gleanings* editorial.

### Importance of Longevity in Bees.

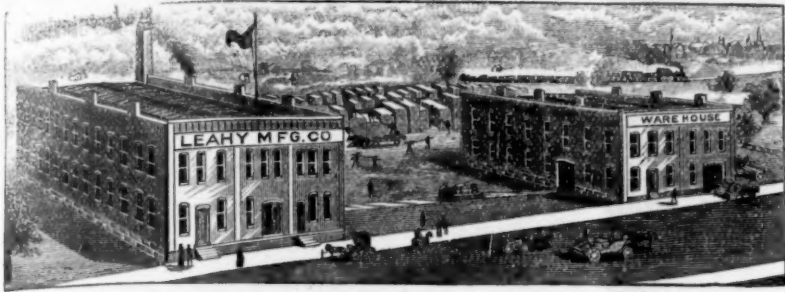
Referring to the article of Geo. J. VandeVord in this journal, page 617 (1895), Editor Hutchinson says in the Review: "Prolificness in queens is almost universally desired. In summing up the desirable qualities of a race of bees, or of a queen, prolificness is almost always put at the head of the list. Occasionally a bee-keeper has had the insight to notice and the courage to say that there are other points of more importance than prolificness: in fact, some have asserted that prolificness is at the expense of other desirable qualities. Every bee-keeper knows that it is not always the most populous colony that stores the most surplus. There is certainly a reason for this, and it is possible that Mr. VandeVord has struck it."

### Bees for Australia.

The present mania seems to be for imported American stock. Though considering them superior to queens reared in Italy, yet those from the Eastern States have one defect which would not occur in those bred from climates similar to our own. In the Northeastern States of America for several months in the winter the bees and queen hibernate and cease from all active exercise. This proves of great advantage to the apiarist there, as the bees thereby have a large stock of unused vitality to start work when the spring opens. This lying dormant in winter time will become hereditary and inbred amongst the race, as those which possess this quality have a better chance of surviving the severe winters. We know that all animals have the power of gradually adapting themselves to the changed conditions of their environment, provided the change is not too sudden. Now these qualities which prove advantageous to the American apiarist has the opposite effect here, as over the greater part of Australia the bees can fly almost any day through the winter. Then we want queens that will lay through the winter as well as summer, for if the workers keep flying through the winter, and there are no young bees hatching out to replace them as they die off, the stock will become too weak by spring-time to be of much value as honey-gatherers for the ensuing summer. I believe to this want of hatching brood may be attributed a great deal of what is called spring dwindling.—A. C. CUSACK, in *Australian Bee-Bulletin*.

**The Names and Addresses** of all your bee-friends, who are not now taking the *Bee Journal*, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.





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## General Items.

### Bees Wintering Finely.

I have 10 colonies of bees, and they are in fine condition for wintering. We had a fine honey crop here last year, in the latter part of the season, though too wet in the spring for much honey. W. W. BUCH.  
New Concord, Ky., Jan. 20.

### Electric Humbugs.

In regard to electric batteries and appliances—subjects upon which my opinion is frequently asked—I unhesitatingly say that ninety-nine (I may as well add the other unit) are unmitigated humbugs. The idea that they exercise other than a moral effect is preposterous in the extreme. All "belts," soles, jackets, bands, are simply devices to catch the dollars of gullible people. Nor are "machines"—"electropoise," "motor via," and all the rest of these high-sounding and misleading appliances—other than sheer rubbish. The fact is, the proper application of electricity puzzles physicians whose every-day business is to investigate its merits; and if such is the case, how can a person unaccustomed to its nature and uses hope to profitably use it, even if he were given a practical instrument, instead of the worthless affairs for which large prices are charged? DR. PEIRO.  
100 State St., Chicago, Ill.

### Hives—Moving Eggs—Transferring.

Dr. Miller's answer to size of hives (on page 745, 1895), 18 1/2 x 14 1/2 x 9 1/2 inches for a 10-frame hive, does not agree with mine—18 1/2 x 14 1/2 x 10 inches (or 9 1/2 inches below the top of the brood-frames), inside measure. I can't account for that extra 1/2 inch, unless the Doctor uses a dummy with 10 frames, but how will a 14 1/2 inch super or combined crate fit his hive? Ten inches deep makes room for a bee-space above the brood-frames.

I would say for the benefit of J. A. S., of Tracy City, Tenn., that I make my hives two story double-walled, and painted three coats at a cost of 87 cents per hive, empty, including tin rabbits (material surfaced at both sides at \$20 per 1,000).

I think D. D. M., of Tidoute, Pa., on page 761 (1895) had a case of bees moving eggs, and from some other hive, too. I had a case somewhat similar, except the swarming. I used the young queens as soon as hatched for requeening, except the very last one from a colony that swarmed Aug. 14, and she was lost on her wedding-flight. She was all right two or three days after she was hatched. I did not look at that colony again until the young queen should have been laying, but I found no queen or eggs; then I did not look again for a week or ten days, and I found no queen or eggs, but queen-cells with larvae in them, also larvae in drone-cells, but no larvae or eggs in worker-cells; no eggs in either queen or drone-cells at this time, Sept. 16 or 17. I cut the cells when they were in the state of nymph (they appeared to be all right), and introduced a queen caged on a frame of brood, from a nucleus, which was accepted all right.

B. F. Onderdonk (see page 786, 1895). I think, will find bees swarm just as quick if the queens are clipped, but they will not abscond unless the queen can go with them. His was rather a hard experience, but I don't think he will have rheumatism very soon. The fruit-bloom, tulip and basswood were all killed here by the late frost, and it was too dry for clover and golden-rod. Nearly all my swarms were cast in August, and my surplus, which was small (16 pounds per colony, spring count), was from wild aster, and the brood-chambers are well filled with white honey from aster. I have my bees all packed in double-walled hives on the summer stands, with a Hill's device over the brood-frames, and a piece of bur-

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lap and four or five thicknesses of rag carpet. I prefer the 10-frame hive with 9 frames and a dummy, then I can contract or enlarge the brood-nest to suit the colony. I like the dummy, for in examining the brood-nest you can take it out and set it down any place, and that gives plenty of room to set the rest of the frames back in the hive as examined, and no danger of robber-bees if there is no honey coming in.

I often see the question asked, When is the best time to transfer bees? I have transferred bees in May, June, July and August. My first colony was transferred from a tree Aug. 15, with not more than 1½ frames of brood and empty comb, no honey. They came through, but were very weak. They built up on golden-rod that fall. Those that were transferred in June and July did not work with the vim that those did that were transferred in fruit-bloom. They worked more like a good prime swarm. Early fruit-bloom is the proper time to transfer.

D. A. HOLEMAN.

Goodwill Hill, Pa., Dec. 14, 1895.

## California Anti-Adulteration Law.

Some time ago there was an inquiry in the Bee Journal respecting the California law on adulteration of honey. The following is a copy from the Revised Statutes of this State:

An Act to provide against the adulteration of food and drugs. Approved March 26, 1895.

SEC. 1. No person shall within this State manipulate for sale, offer for sale, or sell any drug or article of food which is adulterated within the meaning of this Act.

SEC. 2 (part of). . . . . The term "food," as used herein, shall include all articles used for food or drink by man, whether simple, mixed, or compound.

SEC. 3. Any article shall be deemed to be adulterated within the meaning of this Act: (b) In case of food: (1.) If any substance or substances have been mixed with it, so as to lower or depreciate, or injuriously affect its quality, strength or purity. (2.) If any inferior or cheaper substance or substances have been substituted wholly or in part for it. (3.) If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. (4.) If it is an imitation of, or is sold under the name of another article. (5.) If it consists wholly, or in part, of diseased, decomposed, putrid, infected, tainted, or rotten animal or vegetable substance or article, whether manufactured or not; or in the case of milk, if it is produced from a diseased animal. (6.) If it is colored, coated, polished or powdered, whereby damage or impurity is concealed, or if by any means it is made to appear better or of greater value than it really is. (7.) If it contains any added substance, or ingredient which is poisonous or injurious to health.

Provided, that the provisions of this Act shall not apply to mixtures or compounds recognized as ordinary articles, or ingredients of articles of food, if each and every package sold, or offered for sale, be distinctly labeled as mixtures or compounds, with the name and per cent. of each ingre-

dient therein, and are not injurious to health.

SEC. 4. Every person manufacturing, exposing or offering for sale, or delivering to a purchaser, any drug or article of food included in the provisions of this Act, shall furnish to any person interested, or demanding the same, who shall apply to him for the purpose, and shall tender him the value of the same, a sample sufficient for analysis of any such drug or article of food which is in his possession.

SEC. 5. Whoever refuses to comply, upon demand, with the requirements of Section 4, and whoever violates any of the provisions of this Act, shall be guilty of misdemeanor, and shall be fined not exceeding \$100, nor less than \$25, or imprisoned in the county jail not exceeding 100, nor less than 30 days, or both. And any person found guilty of manufacturing, offering for sale, or selling, an adulterated article of food or drug under the provisions of this Act, shall be adjudged to pay in addition to the penalties hereinbefore provided for, all necessary costs and expenses incurred in inspecting and analyzing such adulterated articles of which said person may have been found guilty of manufacturing, selling, or offering for sale.

SEC. 6. This Act shall be in force and take effect from and after its passage.  
Los Angeles, Calif. G. A. MILLARD.

## Moving Eggs—Numbering Hives.

My 51 colonies come out of winter quarters in poor condition in 1895, and dwindled down to 24, but they increased again to 41, and I got 700 pounds of comb honey in one-pound sections, and 300 pounds of extracted. I sold it in my home market for 15 cents for comb and 10 cents for extracted. I have 41 colonies in the cellar in good condition now. I never had them winter better than they have so far.

In regard to bees stealing or carrying eggs from other hives, I can say positively I know they will. Last spring I had a strong colony that was queenless. A cloud came over the sun, and it got cold, so I didn't like to open any more to get a frame of eggs for them, for they did not have an unsealed egg in the hive. It was five or six days before I got to see them. I opened the hive, and on the empty frame I found a queen-cell with an egg not more than three days old. I looked for more eggs, but not another in the hive, so I took out another empty frame and gave them a frame of eggs and brood; in about a week more I looked, and they had taken some of the eggs from that frame and put into the one with the other queen-cell, and started five or six more, and built some on the one I put in. I watched them closely, and their cell hatched out a fine queen, and they tore the rest down themselves. Now, where did they get that egg if they did not steal it?

I can say that the American Bee Journal has been worth more than \$50 to me in the last five or six years I have taken it, by telling me how to get my money in shape for market, and how to handle my bees to the best advantage. It would seem like losing an old friend to be without it.

The last three years have been poor, but

## Got Something for Nothing!

**Did You?** Thousands of readers answering my ad. in the past received free by mail at a cost of 20 cents to me, a package of my discovery, VITÆ ORE, and 90 per cent. have written to thank me and send cash order for more, declaring that it had done them more good than all doctors and man-made remedies they ever used. I scorn to take any one's money until convinced at my expense that V.-O. is the best thing in, on, or out of the earth for all who suffer from ill or no doctor or drug will cure, such as general debility, feebleness from overwork, worries, cares, protracted sickness, old age, female complaints, all kidney and membranous ailments. It is the only natural, Nature's cure for human ills ever offered to man, and not by a quack doctor or methods peculiar thereto. If you have been bamboozled often, and grievously, by robbers in the medicine business, I am not responsible therefor, but am if V.-O. fails to give greater satisfaction than all else you ever tried. Send the addresses of six sick people and I will do the balance.

THEO. NOEL, Geologist, Tacoma Building, Chicago, Ill.

6A4t

Mention the Bee Journal



## St. Joe

Is the name of the Hive you want. **PRICE-LIST** now ready. Send stamp and get valuable paper on **WINTERING BEES.**

**GOLDEN WYANDOTTE Eggs** from fine birds only \$1.00 for 13.

**EMERSON T. ABBOTT, St. Joseph, Mo.**

**HONEY** We have a large amount of Pure No. 1 Alfalfa we will sell cheap.

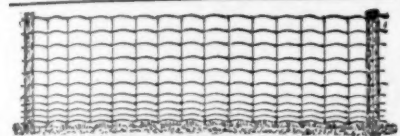
**SEED** Of those great honey-producing plants—Alfalfa and Cleome or Rocky Mountain Honey-Plant. Alfalfa seed at 7 cts. a lb.

**Boss bee-escape** Warranted the best, simplest and quickest Escape on the market. Sent postpaid to any address for 50 cts. It can be returned at our expense if it is not as represented, or we will send the Escape on trial to any bee-keeper wishing to test it in good faith. We are agents for the

**Ferguson Patent Hive** with double-case Super and Wicket-Gate Honey-Board, with the Escape. It is the easiest, quickest hive to handle for the production of comb honey. Address,

**E. S. LOVESY & CO.,**

355 6th East St., SALT LAKE CITY, UTAH.



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**PAGE WOVEN WIRE FENCE CO., Adrian, Mich.**

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### BEE-BOOK

That covers the whole Apicultural Field more completely than any other published, send \$1.25 to Prof. A. J. Cook, Claremont, Calif., for his

### Bee-Keeper's Guide.

Liberal Discounts to the Trade.

### TAKE NOTICE!

**BEFORE** placing your orders for SUPPLIES, write for prices on 1-Piece Basswood Sections, Bee-Hives, Shipping-Crates, Frames, Foundation, Smokers, etc.

**PAGE & LYON MFG. CO.**

NEW LONDON, WIS.

Sweet Clover, Willow-Herb, Basswood

### EXTRACTED HONEY

—For Sale.—

We have made arrangements whereby we furnish **Sweet Clover** or **Willow-Herb** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 8 cents per pound; 2 cans in one case, 7½ cents.

**The Basswood Honey** is all in kegs holding 170 pounds, net. It is a very superior quality, and the prices are: 1 keg, 8½ cents per pound; 2 kegs or more, 8 cents.

Cash must accompany each order.

A sample of either kind of honey will be mailed to an intending purchaser, for 12 cents, to cover postage, packing, etc. We guarantee purity, and that what we ship will be equal to sample.

**GEORGE W. YORK & CO.,**

CHICAGO, ILLS.

the bees have paid as well as anything on the farm. I have run my farm of 80 acres, and seen to the bees, and did the work mostly alone. I have my bee-hives all with numbers painted on them, for this reason: When I am in the field to work, and the bees swarm, some one runs out and rings the dinner-bell as hard as possible; then I know what is up, and run for the house, and the wife will say, "Number 14" or "23," as the case may be, "has swarmed;" sometimes she has the queen in the cage already, for I clip the queens' wings. I don't like to climb tall trees. Then I keep a record this way: 14 swarmed June 20, in hive 16; 23 swarmed June 24, in hive 40. Then you see I know just where the old queen is, and when to open the old hive, and cut out the queen-cells. The next year I can look in my book and see just where my old or young queens are.

**GEO. H. AURINGER.**

Bonniwells Mills, Minn.

### Sweet Clover—Bees and Noise.

As the readers of your paper are desirous of picking up all the knowledge possible about sweet clover, I wish to add what little I know about the hardiness of the plant.

Last September my little nephew and I took a day's outing in the Chemung valley, near Waverly. Of course, I had my bee-hunting kit with me. After fishing until it ceased to be sport, we commenced a search for honey-plants, in order to find bees. Although the season was the driest ever known in this vicinity, sweet clover was found on a dry, gravelly bar, which was so barren for several rods each way that there was scarcely a plant of any other kind. There were plenty of blossoms on the plants, which were only 2 or 3 feet above the low water mark. Those plants must have been under water many times. Probably three or four days at a time during the spring freshets. As I do not wish to be misleading, I will say that stock might have nipped the plants during the summer somewhat, which caused them to blossom so late in the season.

I never took too much stock in the idea of noise interfering with bees, if the hives or their foundation were not thumped, as I have wintered them in first-class condition under the sitting-room where a large family lived. Dr. Gallup's account of that colony wintering on the willow-tree in that rock-a-bye-baby style, has convinced me still more that noise has little effect if the hives are not jarred, or motions are not seen by the bees.

**J. H. ANDRE.**

Lockwood, N. Y.

### How to Market Honey and Wax.

I live in what is called a poor honey country, not many bees being kept here. I have 13 colonies, and produced, last season, 250 pounds of honey in one-pound sections. My best colony gave 67 pounds. Three swarms went away in the month of August. I have sold three-fourths of my honey, and I have not been to any trouble to do it. I work every day at my trade, and some mornings I carry my sample box of honey, which holds 8 one-pound sections; the box is made of ¾-inch white-wood lumber. It is 10 inches square, and 4½ inches deep. The box has a handle on the 4½ inch side, and is carried like a hand traveling-bag. A cover opens from each side, showing four sections on each side. It can be carried in a wagon without breaking the combs, and looks fine when open to show to a customer.

I get 20 cents a section for all of my honey. I keep a supply at the village store, which sells readily. For that I have made a little show-case of comb foundation. We keep the honey in a box at the store, and set out two sections at a time, in the little case, which is made of black walnut lumber and brood-foundation. The bottom is made of a 1-inch pine board, 10 inches long and 5 inches wide, 2¼ inches being left flat for the section to rest on, and 2½ inches of front beveled down to a fine edge. The flat part is covered with white paper, the bevel with foundation. The top is made of ¾-inch black walnut lumber. There are four round posts, and a half-round top-rail on top, with grooves in rail, and posts for foundation to catch in. This attracts considerable attention, as most of the people have never seen any foundation.

I mold my wax into small cakes, and get 5 cents a cake for it—that makes 80 cents per pound.

I am looking forward for a good season next year.

**GEORGE C. BEALS.**

Bridgewater, Mass., Jan. 13.

### Report of a Chicago Bee-Keeper.

My apiary is located on 43rd and Colorado avenue, in a good place, surrounded by a 6-foot board fence, the boards of which are pointed at the top. On the northwestern portion of the grounds stands a neat cottage, the grounds being surrounded by a 16-foot alley. My 13 hives face the east. I have sufficient room for 100 hives.

I winter my bees on the summer stands. Although I have tried many plans for indoor protection, I prefer the former. The amount of honey from eight of these colonies was 700 pounds; three of them I built up. I got 108 pounds from one colony of blacks; the amounts from the others averaged from 70 to 80 pounds. They are all in prime condition.

I have an oak-tree stump that I found in the woods by the World's Fair Grounds. It is a monster, with bees and honey, and stands 6 feet high. It is interesting to see them slip out from two entrances. I would not take \$30 for it.

I notice by reports that the honey crop has been very slim for some years. I think the bee-keepers have to blame themselves for the light crops. If all the bee-keepers took the pains to scatter sweet clover over waste places and grounds, the reports would be quite different from what they are. They talk about all kinds of hives, and their sizes, but sweet clover is the best "hive" made.

I sold 700 pounds of honey at 15 cents per pound.

**TIMOTHY O'DONNELL.**

Chicago, Ill., Jan. 25.

### Phenol Cure for Foul Brood.

I will now give my experience with phenol and the way I used it. I had five colonies to experiment with. Nos. 1 and 2 were very bad, Nos. 3, 4 and 5 were strong, with not much foul brood to be seen, but some cells in every comb. The 5 colonies were treated with half a pint of syrup for three weeks every evening, with 1-500 part of phenol.

Colonies Nos. 1 and 2 I poured the syrup all over the brood in the comb the first two evenings; after that I poured it around the brood on every comb, so they were bound to get it right against the brood. Nos. 3, 4 and 5 I poured the syrup around the brood-nest in every comb in the hives.

This was in July, 1895. There was but little honey coming in at the time. At the end of three weeks' treatment the colonies were just as bad as when the treatment was begun, and the result was I kept the disease in my apiary through the season. If any readers of the *American Bee Journal* have made a success with the phenol cure, I hope they will give it, so the readers can see how they used it. Also, it would be good if those who failed would state how they used it, for I have cured a good many

colonies by the starvation cure, and also by Mr. McEvoy's method.

Where I could have counted 100 colonies two years ago, I could not find 10 colonies to-day, not 2 miles from my apiary, yet I have to keep my bees from increasing too fast. The country was full of foul brood wherever there were bees, and it was impossible to keep the bees from getting at such honey, for the farmers had combs lying around everywhere.

Summit Mills, Pa. D. D. JOHNSON.

### Early Brood-Rearing, Etc.

I have been in the bee-business three years in southern California. The more I am with the bees the better I like them and the care of them. My bees have the name of being the quietest in the community, still I think it advisable to wear a veil while handling them, as they are not of the non-stinging variety. But what I started to tell is, that they have a quantity of brood in all stages at this time. Is that not something unusual for this season of the year? There has been but very few days this winter that they have not carried in pollen. There has never been a time this winter that there has not been flowers of different kinds. At present they are bringing in some honey. We have just had a fine rain, and are hoping for a good crop the coming season. I have 140 colonies in good condition. I use the Langstroth 10-frame hive.

E. E. WILSON.  
Del Rosa, Calif., Jan. 22.

### Honey & Beeswax Market Quotations.

CHICAGO, ILL., Feb. 21.—White clover and basswood comb is sought after in preference to any other, and commands a better price and now sells at 15c. for clover and 13@14c. for basswood. Other white comb honey sells at 11@12c.; dark, 8@9c. amber, 9@10c., and very slow of sale. Extracted is unusually dull, with large amounts on sale. White clover and Linden, 6@7c.; dark and amber grades, 4½@5c.

Beeswax, 28@30c.

R. A. B. & Co.

PHILADELPHIA, PA., Jan. 3.—Honey has declined in this market during the holidays. Large lots of California honey arriving, and selling at 5c. in 60-lb. cans. We quote: Comb honey, fancy, 16c.; fair to good, 8@14c. Extracted, 4@5½c.; white clover, 10c.

Beeswax, 30c.

W. A. S.

CINCINNATI, O., Feb. 18.—Demand is fair for choice comb honey, at 12@14c. in a jobbing way. Extracted is slow at 4@7c.

Beeswax is in good demand at 25@30c. for good to choice yellow.

C. F. M. & S.

KANSAS CITY, Mo., Feb. 19.—The demand for comb and extracted is fair. We quote: No. 1 white, 1-lb., 13@14c.; No. 2, 11@12c.; No. 1 amber, 10@11c.; No. 2, 8@10c. Extracted, white, 5½@6½c.; amber, 5@5½c.

Beeswax, 20@25c.

C. C. C. & Co.

**Catalogs for 1896.**—We have received the following Catalogs, Price-Lists, etc., a copy of which may be obtained upon application, always being careful to say you saw their advertisement in the American Bee Journal:

Geo. E. Hilton, Fremont, Mich.—Bee-Keepers' Supplies.

M. H. Hunt, Bell Branch (near Detroit), Mich.—Bee-Keepers' Supplies.

Ezra G. Smith, Manchester, N. Y.—Small Fruit Plants.

L. L. Olds, Clinton, Wis.—Seeds.

Storrs & Harrison Co., Painesville, Ohio.—Seeds, Plants, Trees, etc.

Emerson T. Abbott, St. Joseph, Mo.—Agricultural Supplies, Household Conveniences, etc.

UTAH.—The Utah Bee-Keepers' Association will hold their semi-annual meeting in Room 54, City and County Building, Salt Lake City, Apr. 6, 1896, at 10 a. m. All are invited. "In union is strength. By industry we thrive." Come, and bring your friends, and enjoy a good time. A full program in the interest of the industry will be presented. The Association needs your aid; then let every one do his full duty for our own interest and self-preservation.

Provo, Utah.

GEO. E. DUDLEY, Sec.

## SOME BOOK REVIEWS.

"DOMESTICATED ANIMALS: Their Relation to Man and his Advancement in Civilization," is the title of a new book published by Charles Scribner's Sons, N. Y. It was written by Prof. Shaler, of Harvard University, contains about 300 pages, is finely illustrated, and sells for \$2.50. The dog, the horse, cattle, sheep, swine, domesticated birds, and, under the head of "Useful Insects," the honey-bee, receive attention. His talk about bees is interesting, but contains nothing new, and is marred by some blunders such as scientific men, who are not practical bee-keepers, are apt to make. The chapters on the "Rights of Animals" and the "Problem of Domestication" should be carefully read by all who have an opportunity. Prof. Shaler shows a keen sympathy with the animal kingdom, and he is an able and instructive writer. Such a book cannot fail to do good.

"THE WORLD OF MATTER: A Guide to the Study of Chemistry and Mineralogy," This book is published by D. C. Heath & Co., Boston, Mass. It was written by Prof. H. H. Ballard, A. M., who has exhibited on every page a peculiar aptness to teach. He begins with a commonplace thing—a piece of ice—and then takes up such subjects as water, air, earth, quartz, carbon, iron, chlorine, salt, etc. He talks about these in a way that is sure to interest, hold the attention, and instruct the reader from the start. This is another one of the books which make the student feel that he is studying THINGS as they ARE, rather than theories about them. It will be found a valuable book, especially where there is a family of children growing up.

"AGRICULTURE" is the title of a late work written by R. H. Wallace, and published by J. B. Lippincott Co., Philadelphia, Pa.; price \$1.25. It was written by a citizen of another country, but the principles of agriculture are the same the world over. Every phase of what is generally called "Agriculture" receives a brief but careful discussion in language that can be easily understood. The bee-keeper will be interested in the recognition which the busy little workers receive in the chapter on "Blossoms and their Functions." "The yield of fruit trees," he tells us, "has often largely increased by the introduction of bees into the neighborhood." "The flowers, as it were, tempt the bees unconsciously to help them to reproduce themselves by the combined means of pretty sights and dainty fare." So the busy bee is slowly receiving the recognition its importance merits in the literature of the country, and this recognition cannot fail to bear fruit in time.

The book contains over 300 pages, is filled with illustrations of agricultural implements and products, has an excellent index, is well bound and neatly printed. The price, considering the quality of the contents, is very reasonable.

BOTANY.—Wherever the science of botany is made a study, the name of Asa Gray is familiar, and his text-books have so long been a standard in this country that it seems like a superfluity to write of them. We desire, however, to invite the attention of the reader to a new edition of his "Field, Forest and Garden Botany," published by the American Book Co., Chicago, Ill., price, \$1.45. This edition has been thoroughly revised by Prof. Bailey, of Cornell, and the searcher after information will find it up to date in every respect, and thoroughly reliable. The bee-keeper will notice many plants mentioned in this edition, which were not found in the earlier editions, that are of special interest to him—and more, attention is called to their value as honey-producers. We are glad to note this for a general recognition of the industry in the literature of the country cannot fail to prove of material advantage to it.

This book, bound with "Gray's Lessons," under the general title of "Gray's School and Field-Book of Botany," price, \$1.80, is almost a necessity to those who have any interest in the study of plants, and should be in every home where there are children. The "Lessons" furnish the "Key," or nomenclature of the subject, giving all the essential facts as to the growth and development of plants, and the second part enables the student to properly name and classify any of the common plants of the Northern, Middle, and Southern States.

Any of the above books may be ordered through the Bee Journal office.

Bee-Keeper's Guide—see page 143.

## PERSONAL MENTION.

PETER EHL, of Sherrills, Dubuque Co., Iowa, would like to correspond with some bee-keeper living near Traverse City, Mich., about locating there.

THE BLUEST THING OUT is the Progressive Bee-Keeper, or at least the outside is very blue-covered. But the inside is bright re(a)d-ing. Greatly improved this year.

MR. W. Z. HUTCHINSON contributes some very interesting and practical articles these days to the columns of The Country Gentleman, one of the oldest and best agricultural periodicals of this country.

DR. GEORGE DUNCAN, of Embro, Ont., Canada, died Jan. 22. He was one of the oldest bee-keepers in the Province, having made apiculture a deep study, and was recognized as an authority.

MR. JOHN NAU, of Middletown, Iowa, made the Bee Journal office a call recently. He comes to Chicago about once a year with a carload of stock. He thinks the prospects are good in his region for a honey crop this year.

DR. C. C. MILLER AND FAMILY (Mrs. Miller and Miss Emma Wilson) were in Chicago the first week in February. The Doctor came in to help count the ballots cast by the members of the National Bee-Keepers' Union for the election of officers for 1896.

MR. JAS. A. STONE, the good Secretary of the Illinois State Bee-Keepers' Association, was requested to write an essay on "Bee-Husbandry" for their local farmers' institute, Feb. 20 and 21. We are sure it was well done, for Mr. Stone possesses the "know how."

MR. N. STAININGER, of Tipton, Iowa, called on us recently. He was on his way home from a trip through western Tennessee. He thinks some of changing from his present location—may go to Missouri. Mr. S. had 25,000 pounds of honey in 1889, part comb and part extracted.

HYGIENIC LIVING is the title of a most excellent 4½-page article by Mr. Allen Pringle, of Canada, in the January Review. He's a great quill-pusher when he "gets a-going." He's a good deal of a physiologist, phrenologist, bee-ologist, and—well, that's pretty much the "gist" of him, anyway.

### List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

#### Chicago, Ills.

R. A. BURNETT & Co., 163 South Water Street.

#### New York, N. Y.

HILDRETH BROS. & SEGELKEN.

120 & 122 West Broadway.

CHAS. ISRAEL & BROS., 486 Canal St.

#### Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St.

#### Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

#### Hamilton, Ills.

CHAS. DADANT & SON.

#### Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

#### Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central ave.

NEW YORK.—The Seneca County and Central New York Bee-Keepers' convention will be held at Hayt's Corners, Seneca Co., N. Y., at 9 o'clock, Mar. 5, 1896. All are cordially invited to attend. An oyster dinner will be served to all visitors. C. B. HOWARD, Sec. Romulus, N. Y.



## The Bee-Keepers' Guide: Question-Box.

Or Manual of the Apiary,

By Prof. A. J. Cook.

This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting new subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to date. Fully illustrated, and all written in the day's most fascinating style. The author is also most well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

### For Two New Subscribers and Your Own Renewal.

Send us Two New Subscribers to the Bee Journal and your own renewal (with \$3.00), and we will mail you a copy of Prof. Cook's book FREE as a premium, and also a copy of the 160-page "Bees and Honey" to each New Subscriber. Prof. Cook's book alone is \$1.25, or we club it with the Bee Journal for a year—both together for only \$1.75. But surely anybody can get only 2 new subscribers to the Bee Journal for a year, and thus get the book as a premium. Let everybody try for it. Will you have one?

GEORGE W. YORK & CO.,  
CHICAGO, ILLS

### TEXAS QUEENS.

If you are in need of Queens, let me have your order. Price-List Free.

8A26t J. D. GIVENS, Lisbon, Tex.  
When answering this advertisement, mention this journal.

**ORIGINAL  
BINGHAM  
SMOKERS**

**Wonderful  
Record!**

HAVE LASTED 17  
YEARS.

**—BEST ON EARTH.**

**Always Give Perfect Satisfaction.**

My cool Wire Handle and Bent Nose were patented 1892, are the original, my best invention since my open or direct draft Patent, 1878, that revolutionized Bee-Smokers. My Handle and Nose Patent bent all the other smoker noses. None but Bingham Smokers have all the best improvements. If you buy genuine Bingham Smokers and Honey-Knives you will never regret it. The "Doctor," 1/4-inch larger than any other smoker on the market—3 1/2-inch stove, by mail, \$1.50

Conqueror, 3 "	1.10
Large, 2 1/4-in. "	1.00
Plain, 2-in. "	.70
Little Wonder, 2-in., wt. 10 oz.	.60

Bingham & Hetherington Honey-Knives, 89 cents.

**T. F. BINGHAM, Farwell, Mich.**  
7A1f Mention the Bee Journal.

12 Pkgs. tested, pure, fresh garden seeds, 12 cts., postpaid. E. N. Thomas, Shenandoah, Iowa.

**Bee-Keepers' Photograph.**—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 50 cents each, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

In the multitude of counsellors there is safety.—Prov. 11-14.

### Single or Double Brood-Chambers for 12 Frames.

**Query 6.**—I am inclined to think I want 12 frames or more in the brood-chamber. Is it best to have these in a single hive large enough to contain all, or to use two eight-frame hives, filling up the vacancy with dummies?—IND.

Mrs. L. Harrison—I prefer 8-frame hives.

W. G. Larrabee—I would use them all in one story.

Dr. C. C. Miller—I don't know. I'm trying to find out.

Prof. A. J. Cook—I prefer the two-story 8-frame hive.

J. M. Hambaugh—I would use the 12 frames in one body.

J. A. Green—I should prefer to have them all in one hive.

Dr. J. P. H. Brown—I would have them in a single story.

B. Taylor—I would make the frames deeper, and use 10 in a hive.

W. R. Graham—I would want all my brood-frames in a single hive.

G. M. Doolittle—if I used 12 frames I should put them in a single hive.

P. H. Elwood—if I used no more than 12 frames I should put them into one story.

Mrs. J. N. Heater—if I had to use 12 frames, I should certainly have them all in one hive.

Jas. A. Stone—Whatever number of frames I would have, I think best to have them all in one hive.

Chas. Dadant & Son—We much prefer a single story for brood, with dummies if needed to reduce the space.

E. France—Use two 8-frame hives one over the other. We use three 8-frame hives, that is, three tiers high.

R. L. Taylor—Better have a single hive large enough to hold 12 frames, and fill that up partly with dummies.

C. H. Dibbern—I think I should prefer the single hive for comb honey, and the two hives for extracted honey, but I would omit the dummies.

H. D. Cutting—It depends upon the size of frame. Why don't you say what you are using? I don't believe you want 12 Langstroth frames in a brood-chamber in Indiana, any more than we do in Michigan.

Emerson T. Abbott—I do not want any "dummies" in a brood-chamber. There are too many "dummies" lying around in the country now. If I wanted more than eight frames, and used a two-story hive, I should prefer 16.

Eugene Secor—if you winter bees on the summer stands, perhaps one hive would be preferable. If in a cellar, such a hive would be too large to handle. I would not use 16 frames in either case, but your conditions may be different.

Allen Pringle—You have struck a vexed question. Some of the "lights" have been at that a long time, with no sign of stopping. Let them go on with

it to the crack of doom, and not only will everybody have his own opinion still, but nobody will be much the wiser. If you must have "12 frames or more" in the brood-chamber, I would advise the double 8 duly dummies.

G. W. Demaree—I would want them in a single hive-body, like the Dadants make their hives. But I doubt very much if you don't learn that 9 or 10 Langstroth frames in the brood apartment is preferable, one year after another.

Rev. M. Mahin—I cannot imagine why you want 12 or more frames in the brood-chamber, unless you want something on the Heddon plan. If I wanted 12 or more I would have about 20; and I would have them about 12 inches long and 6 inches deep, and have 10 below and 10 above.

J. E. Pond—This is a question that can only be determined by yourself and by experimenting. Different localities affect this question to such an extent that experiments are the only guide to determine the matter. I prefer a 10-frame Langstroth hive, tiered up to suit the condition of matters during the honey-flow.

**POULTRY**

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